DOCUMENT RESUME

ED 088 892 SP 007 867

AUTHOR Edeburn, Carl E.; Landry, Richard G.
TITLE Teacher Self-Concept and Student Self-Concept.
PUB DATE 74
NOTE 24p.; Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, Illinois, April 1974)

EDRS PRICE MF-$0.75 HC-$1.50
DESCRIPTORS Changing Attitudes; *Elementary School Students; *Elementary School Teachers; *Self Concept; *Teacher Influence; Teachers

ABSTRACT

This research concerns the changes in children's levels of self-concept over an academic year and whether these changes are related to the self-concept of their teachers. Data were generated from 16 self-contained classrooms in the third, fourth, and fifth grades of a midwestern city. Students' self-concepts were measured by the primary form of the "Self Appraisal Inventory." Teachers' self-concepts were measured by the "Index of Adjustment of Values." The statistical procedures included the related t test and residual gains analysis. A general pattern of attrition of self-concept was evidenced and was significantly related to the self-concepts of teachers. (Author)

ED 088892

5.16

TEACHER SELF-CONCEPT AND STUDENT SELF-CONCEPT

Carl E. Edeburn
South Dakota State University

and

Richard G. Landry
University of North Dakota

DIVISION C

SECTION C-2 TEACHER BEHAVIOR, TEACHER EDUCATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

SP 007 867

INTRODUCTION

The elementary school experience is considered an important factor in the process of becoming a self-actualizing person. However, it may become a frightening, frustrating and anxiety-producing experience for a young child.

As children grow and develop they learn and interact, not only in the arena of the world, but also within the arena of self. Each of these learning arenas is of great importance to the individual. The former deals in cognitive growth, which in turn may lead to social and economic recognition or status. The latter is intensely personal, is in a large part private, and is of vital importance to both personal happiness and public behavior. If in the elementary school cognitive growth is emphasized and affective growth ignored, the child may be subjected to a highly competitive weeding process that could seriously erode his feelings of personal adequacy. If affective growth is emphasized and cognitive growth neglected, the latter may be limited. In either case the child may be exposed to unnecessary frustrations and anxieties.

It would seem that any institution interested in enhancing human potential should be extremely concerned about facilitating continual growth in both arenas.

Contemporary literature has contained much criticism of the school's treatment and/or avoidance of concern for the arena of self. Several writers (Moustakas, 1969; Purkey, 1970; Henry, 1971; Holt, 1971) theorized

that alienation of self and negative attitudes toward learning were being generated in the school environment. One writer (Cronbach, 1963) theorized that negative influences may have been cultural in nature. Others (Rosenberg, 1965 and Henry, 1971) maintained that the emphasis placed upon evaluation and peer group competition were generating widespread feelings of inadequacy among students.

A review of the research literature indicated that studies had been conducted dealing with the attrition of self-concept and attitudes toward school. The investigations of Morse (1964), Neale and Proshek (1967), Yamamoto, Thomas and Karnes (1969), and Katz and Zeigler (1967) all reported significant decreases in self concept and/or attitude toward school with advances in age and grade level placement.

Studies have also investigated the relationship between self concept and interaction with significant others. Research conducted by Trent (1957), Coopersmith (1959) and Reese (1961) provided evidence of a relationship between the self concept of elementary school children and acceptance of others. Combs (1965), Walker (1965), and Purkey (1970) all theorized that the self concept of children was indeed related to the self concept of their teachers.

METHOD

The purpose of this study was to investigate selected aspects of self concept in elementary school students and their teachers as measured by self report instruments in an initial and retesting situation. Attention was given to determining whether changes in the children's levels of self concept had taken place during the school year, and whether a relationship

existed between the self concept of the students and the self concept of their teachers.

The study was conducted in two Grand Forks (North Dakota) Public Schools during the 1972-73 school year. The sample investigated in this study included students in 16 third, fourth and fifth grade self-contained classrooms attending their respective school for the entire year and completing all of the pre and posttests and the teachers assigned to these students.

The following hypotheses were proposed and tested in this study:

1. The children's levels of self concept will not change significantly during the school year.

2. No significant relationship will exist between the levels of self concept of the students and the levels of self concept of their teachers.

The subjects included in the analysis of data consisted of 295 elementary school students (see Table 1) and their 16 teachers.

Self concept and attitude toward school in grades three, four and five were measured on a pre and post basis by the primary form of the Self Appraisal Inventory (SAI), and the primary form of the School Sentiment Index (SSI).

The SAI (IOX, 1970a) is a direct self report test measuring self concept along four scales or dimensions: (1) peer, (2) family, (3) scholastic, (4) general. The SSI (IOX, 1970b) is a direct self report test dealing with attitudes toward school along five scales or dimensions: (1) teacher, (2) school subject or learning, (3) school social structure and climate, (4) peer group, (5) general. Composite scores on the SAI and SSI

provide an additional dimension for analysis. The reliabilities for these instruments (Popham, 1972) are adequate for elementary school children and are reported in Table 2.

Teacher self concept was measured on a pre and post basis by the Index of Adjustment and Values (IAV). This instrument (Bills, 1957) yields three possible indices of self concept. The first is an index of self in general, the second an index of self-acceptance, and the third, which is computed by subtracting the first index from an ideal self score, is described as the self-ideal self discrepancy index. Bills (1957, p. 12) reported the "self" form of the IAV to be reliable at the .86 level in Column I, .90 level in Column II, and at the .94 level in Column III as determined by the split-half method for teachers. Column III (self-ideal self discrepancy) was used in this investigation.

The statistical procedures used in this study included the related t test, and a two way analysis of variance of residual gain scores. The .05 and .01 significant levels were used in the interpretation and evaluation of the findings.

Hypothesis 1

To test Hypothesis 1, self concept and attitude toward school as reported on the pre and posttest by the Instructional Objectives Exchange (IOX) instruments were compared by performing related t tests on the variables independently for boys, girls, and all students at each grade level. A summary of the results is reported in Tables 3-5.

Results of the findings for grade 3 are presented in Table 3. The difference between the means of the boys for all subscales of the SAI

was negative and significant for the composite score. Negative values indicated lower means on the posttest.

The differences between the means of the girls on this instrument were all negative and significant. The differences between the means for all students paralleled that of the girls.

No significant differences were noted between the initial and retest means of the boys on the SSI. Significant negative differences were noted between the means of the girls in the subject and peer subscales, as well as in the composite score. The means for all students were significantly different in the peer subscale and in the composite score.

The findings for grade 4 are reported in Table 4. Although mostly negative, the differences between the means were nonsignificant except for the SAI scholastic subscale for all students and the SSI subject subscale for girls.

The findings for grade 5 are reported in Table 5. A significant negative difference was evidenced between the means for the boys in the SAI peer subscale. A similar difference was evidenced for the girls in the peer subscale and in the composite score. The difference between the means for all students was significant and negative for the peer subscale and composite score and significant and positive for the family subscale.

A significant positive difference was evidenced between the means for the boys in the teacher subscale of the SSI. A significant negative difference was noted in both the subject subscale and composite score for girls. A significant negative difference was also noted in the t value for all students in the subject subscale.

Hypothesis 2

To test hypothesis 2, the students were grouped according to their teacher's level of self concept as determined by the teacher's self-ideal self discrepancy score (IAV) and compared on residual gain scores.

Teacher Groups. The self-ideal self discrepancy scores of the 16 teachers were ranked and then divided into high, medium and low groups. The residual gain scores of children assigned to these teachers were then placed in the appropriate group (see Table 6) for the analysis of variance.

Residual Gain. Essentially the residual gain method of comparing scores can be conceived as a partial correlation between the group membership variable and the residuals in the posttest data using the pre-test data as a predictor. Dubois (1957, 1970), Carver (1970), and Bakan (1970) all dealt with the application of residual gain analysis in more detail than was feasible in the present study.

Results. The subscale and composite means of the residual gain scores (pretest predicting) as measured by the SAI and SSI instruments for boys and girls in each teacher group and in total, as well as the means for all students in each teacher group, were determined and are reported in Tables 7 and 8. Included in each table were the F values for the main effects sex, and teacher self concept group, as well as the interaction effect.

Results of the analysis of SAI residual gain scores is presented in Table 7. No significant differences between sexes were evidenced.

Significant differences were noted for the effect group placement in the family and general subscales as well as in the composite of scores. Examination of the means indicated that the residual gain scores diminished

in concert with teacher self concept, in the non-significant scholastic subscale as well as in all of the significant dimensions. Also, it was noted that the sharpest decline was evidenced by the girls in the family subscale and in the composite of scores, while boys declined more sharply in the general subscale.

None of the dimensions evidenced significant interactions.

The results of the analysis of SSI residual gain scores are reported in Table 8. A significant difference for the effect sex was evidenced in the general subscale. Examination of the means indicated that the girls professed higher residual gains in attitude than did the boys toward school in general. None of the other dimensions were significantly different for this effect.

A significant difference for the effect group placement was noted in the teacher subscale. Examination of the means indicated that the residual gain scores diminished in concert with teacher self concept for this dimension. None of the other subscales were significantly different for the group placement effect and none of the dimensions evidenced significant interactions.

DISCUSSION

Attrition of Self Concept and the School Environment. A large body of theoretical writing has been concerned with characterizing the school environment as being detrimental to the self concept levels of students. General criticism has been focused upon negative cultural influences, increased emphasis upon evaluation in the cognitive domain, the promulgation of peer group competition and other varied and complex causes.

Several research studies (Morse, 1964; Neale and Proshek, 1967; Katz and Zeigler; and Yamamoto, Thomas and Karnes, 1969) have offered evidence of actual attrition of self concept and/or attitude toward school.

The findings of the present study seemed to be in concert with these research conclusions when investigated independently within grades three and five. In testing Hypothesis 1, 26 of the 28 significant t values were negative, indicating that the levels of self concept and attitude toward school decreased during the school year in 93 percent of the significant dimensions.

Relationship Between Student and Teacher Self Concept. Several studies have been concerned with the relationship of self concept and interaction with significant others. Several reporters have concluded that the degree of acceptance was related to the children's acceptance of self. Others (Combs, 1965; Walker, 1965; and Purkey, 1970) theorized that the self concept of children was directly related to the self concept of their teachers. The latter theory was investigated in this study.

Indications of a relationship between student and teacher self concept were evidenced in the residual gain analysis of the SAI dimensions of family and general (global view of self). The indication was also evidenced in the composite score of this instrument, inferring an even more general relationship. Indications of a relationship between student attitude toward school and teacher self concept was also noted in the analysis of residual gain scores on the SSI dimension "teacher."

Synthesis. Essentially, this study directly or peripherally examined two general putative theories. The first, as evidenced in the contemporary journalistic literature, indicated that the school is often an alien

environment which contributes to an attrition of self concept and general attitude toward learning among school children. The second was the relationship between the levels of self concept of the teachers (significant others) and the school children. Although this theory was either propounded or inferred in several sources, an exhaustive review of the literature failed to locate a single study which reported empirical evidence of such a relationship.

Putative generalizations concerning the effect of the school environment upon young children were supported in the present study when investigated independently within grades three and five. If not confined to the singular or unique responses of these particular students, it could perhaps be theorized that children in these grades are either: (1) confronted with a milieu of environmental experiences to which they are unable to relate; (2) less adequately prepared to cope with the existing school environment at this point in the elementary school experience than children of other grade levels; (3) the familial, social, curricular, and methodological practices as promulgated at these grade levels do not enhance or maintain the students' self concepts and/or attitudes; or (4) a combination of the above.

In the case of the first point, evidence of a developmental plateau at ages eight and ten might be theorized. In the case of the second point, inadequacies in the design of scope and sequence of experiences relative to the total picture of elementary education might be in evidence. In the case of point three, practices promulgated and/or experienced in the home, the peer group, discipline areas, and in the teaching strategies might have accounted for the evidenced attrition. Finally, a combination of the above might have contributed to the evidence as reported.

Also, a review of the literature failed to reveal a single study which reported empirical evidence of a relationship between teacher self concept and student self concept. Although the evidence is not conclusive, it supports this notion to which many theorists have subscribed. The particular instrument used in this study measured the difference between the self and ideal self of the teachers. Those teachers who reported low discrepancy scores were probably more secure and self-confident, whereas those teachers with wide divergence were probably less secure and more subject to role playing. The evidence supports to some extent that the teacher's self concept is related to the development of self concept in elementary school children.

REFERENCES

Bakan, D. Analysis of covariance in training research. In P. H. Dubois and G. D. Mayo (Eds.), Research strategies for evaluation training. Chicago: Rand McNally, 1970.

Bills, R. E. Manual: Index of adjustment and values. University, Alabama: University of Alabama (undated about 1957).

Carver, R. P. The relation between two measures of learning; residual gain and common points of mastery. In P. H. Dubois and G. D. Mayo (Eds.), Research strategies for evaluation training. Chicago: Rand McNally, 1970.

Combs, A. W. The professional education of teachers. New York: Allyn and Bacon, 1965.

Coopersmith, S. A. A method for determining types of self esteem. Journal of Abnormal Social Psychology, 1959, 59(9), 87-94.

Cronbach, L. J. Educational psychology. (2nd ed.) New York: Harcourt Brace and World, 1963.

Dubois, P. H. Multivariate correlational analysis. New York: Harper, 1957.

Dubois, P. H. Correlational analysis in training research. In P. H. Dubois and G. D. Mayo (Eds.), Research strategies for evaluating training. Chicago: Rand McNally, 1970.

Henry, J. In suburban classrooms. In B. Gross and R. Gross (Eds), Radical school reform. New York: Simon and Schuster, 1971.

Holt, J. How children fail. In B. Gross and R. Gross (Eds.), Radical school reform. New York: Simon and Schuster, 1971.

Instructional Objectives Exchange. Measures of self concept. Los Angeles: Instructional Objectives Exchange, 1970a.

Instructional Objectives Exchange. Attitude toward school. Los Angeles: Instructional Objectives Exchange, 1970b.

Katz, P., & Zeigler, E. Self image disparity: A developmental approach. Journal of Personality and Social Psychology, 1967, 5, 186-195.

Morse, W. C. Self concept in the school setting. Childhood Education, 1964, 41, 195-198.

Moustakas, C. The authentic teacher. Cambridge, Massachusetts: Howard A. Doyle, 1969.

Popham, W. J. Empirical based revision of affecting measuring instruments. Paper presented at the Annual Meeting of the California Educational Research Association, San Jose, November 8-9, 1972.

Purkey, W. W. Self concept and school achievement. Englewood Cliffs, New Jersey: Prentice-Hall, 1970.

Reese, H. W. Relationships between self-acceptance and sociometric choices. Journal of Abnormal and Social Psychology, 1961, 62, 472-474.

Rosenberg, M. J. Society and the adolescent self image. Princeton, New Jersey: Princeton University Press, 1965.

Trent, R. D. The relationships between expressed self-acceptance and expressed attitudes toward negro and white in negro children. Journal of Genetic Psychology, 1957, 91, 25-31.

Walker, T. T. Teacher image. Peabody Journal of Education, 1965, 43(7), 40-41.

Yamamoto, K., Thomas, E. C., & Karnes, E. A. School related attitudes in middle-school age students. American Educational Research Journal, 1969, 6, 191-206.

TABLE 1

TABLE OF STUDENTS BY SEX AND GRADE LEVEL

Grade	Boys	Girls	All
	Primary		
3	60	59	119
4	38	35	73
5	46	57	103
Total	144	151	295

TABLE 2

INTERNAL CONSISTENCY AND STABILITY COEFFICIENTS OF THE IOX INSTRUMENTS AS REPORTED BY POPHAM (1972)

Instruments	Internal Consistency Index (r_{ic})	Test-Retest Stability Index (r_s)
Self Appraisal Inventory		
Primary		
Peer	.60	.29
Family	.61	.50
Scholastic	.62	.58
General	.50	.43
Composite	.37	.73
School Sentiment Index		
Primary		
Teacher	.62	.61
Subject	.49	.68
Structure	.48	.55
Peer	.42	.35
General	.70	.85
Composite	.72	.87

TABLE 3

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS AND t VALUES BY SEX AND BY TOTAL GROUP FOR GRADE 3

Variable	Pretest						Posttest						t Values		
	Boys		Girls		All		Boys		Girls		All		Boys	Girls	All
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD			
SAI															
Peer	7.1	2.5	7.9	2.4	7.5	2.5	6.7	2.6	6.8	2.8	6.8	2.7	-1.03	-3.09[a]	-2.78[a]
Family	3.3	1.4	3.8	1.0	3.5	1.3	2.9	1.3	3.2	1.4	3.0	1.3	-1.86	-4.28[a]	-4.05[a]
Scholastic	6.6	2.7	8.0	1.8	7.3	2.4	6.2	2.6	6.5	2.4	6.3	2.5	-1.12	-4.58[a]	-3.93[a]
General	6.6	1.9	7.2	1.5	6.9	1.7	6.2	2.1	6.5	1.7	6.3	1.9	-1.40	-2.73[a]	-2.85[a]
Composite	23.5	6.4	26.9	5.0	25.2	6.0	21.9	5.5	22.9	6.3	22.4	5.9	-2.09[b]	-5.45[a]	-5.15[a]
SSI															
Teacher	4.1	1.3	4.2	1.3	4.1	1.3	4.1	1.5	4.1	1.5	4.1	1.5	0.41	-0.27	0.12
Subject	4.5	1.6	5.0	1.3	4.7	1.5	4.5	1.7	4.6	1.4	4.6	1.6	0.14	-2.05[b]	-1.10
Structure	3.1	1.3	3.2	1.2	3.1	1.3	2.9	1.2	3.0	1.4	3.0	1.3	-0.89	-0.88	-1.25
Peer	3.0	1.2	3.8	1.0	3.4	1.2	3.2	1.2	2.8	1.3	3.0	1.2	0.86	-6.55[a]	-3.03[a]
General	3.3	1.9	4.1	1.5	3.7	1.8	3.1	1.7	3.8	1.7	3.4	1.7	-1.16	-1.43	-1.84[b]
Composite	17.9	5.2	20.3	4.2	19.1	4.8	17.9	5.4	18.4	5.3	18.1	5.4	-0.08	-3.27[a]	-2.14

[a]Significant at .01 level

[b]Significant at .05 level

TABLE 4

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS AND t VALUES BY SEX AND BY TOTAL GROUP FOR GRADE 4

Variable	Pretest						Posttest						t Values		
	Boys		Girls		All		Boys		Girls		All		Boys	Girls	All
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD			
SAI															
Peer	8.2	2.3	8.1	1.9	8.2	2.1	7.9	2.4	7.5	2.8	7.7	2.6	-0.73	-1.21	-1.37
Family	2.8	1.3	3.5	1.6	3.1	1.5	2.7	1.2	3.7	1.3	3.2	1.3	-0.44	0.68	0.27
Scholastic	6.9	2.3	7.6	2.6	7.2	2.5	6.2	2.7	6.7	2.4	6.5	2.6	-1.47	-2.01	-2.41[a]
General	6.8	1.4	6.9	1.4	6.8	1.4	6.9	1.4	6.5	1.8	6.7	1.6	-0.28	-1.93	-0.89
Composite	24.6	5.2	26.1	5.8	25.3	5.5	23.7	6.0	24.4	6.3	24.0	6.1	-0.89	-1.74	-1.79
SSI															
Teacher	4.3	1.3	4.3	1.2	4.3	1.2	3.9	1.0	4.0	1.2	4.0	1.1	-1.55	-1.13	-1.91
Subject	5.1	3.9	5.0	1.5	5.1	3.0	4.4	1.5	4.5	1.7	4.5	1.6	-0.91	-2.25[a]	-1.58
Structure	3.3	1.3	3.8	1.1	3.6	1.2	3.3	1.3	3.7	1.1	3.5	1.2	-0.09	-0.75	-0.54
Peer	3.2	1.0	3.1	1.1	3.1	1.0	3.1	1.0	3.3	1.3	3.2	1.2	-0.53	0.80	0.32
General	3.1	1.9	3.9	2.0	3.5	1.9	2.8	1.8	3.9	1.6	3.3	1.8	-0.88	0.08	-0.57
Composite	18.5	4.1	20.1	4.5	19.2	4.3	17.6	4.3	19.3	4.5	18.4	4.4	-1.10	-0.91	-1.43

[a]Significant at .05 level

TABLE 5

PRETEST AND POSTTEST MEANS, STANDARD DEVIATIONS AND t VALUES BY SEX AND BY TOTAL GROUP FOR GRADE 5

Variable	Pretest						Posttest						t Values		
	Boys		Girls		All		Boys		Girls		All		Boys	Girls	All
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD			
SAI															
Peer	7.9	2.3	7.9	2.3	7.9	2.3	6.5	1.9	6.3	1.8	6.4	1.9	-4.60[a]	-5.93[a]	-7.50[a]
Family	3.5	1.3	3.3	1.4	3.4	1.4	3.9	1.6	3.6	2.0	3.8	1.8	1.43	1.59	2.15[b]
Scholastic	6.4	2.5	6.9	2.2	6.7	2.3	6.9	2.1	7.0	2.2	7.0	2.1	1.54	0.17	1.09
General	7.1	1.7	6.9	1.5	7.0	1.6	6.9	1.2	6.4	1.5	6.7	1.4	-0.45	-1.89[b]	-1.68[a]
Composite	25.0	5.5	25.0	5.7	25.0	5.6	24.2	4.4	23.1	5.8	23.6	5.2	-1.07	-2.54	-2.66[a]
SSI															
Teacher	4.4	1.4	4.5	1.2	4.5	1.3	5.0	1.0	4.3	1.3	4.6	1.2	2.12[b]	-1.39	0.58[a]
Subject	4.1	1.9	4.9	1.4	4.5	1.7	3.8	1.7	4.2	1.5	4.0	1.6	-1.08	-3.22[a]	-3.16[a]
Structure	3.7	1.2	3.6	1.2	3.7	1.2	3.9	1.0	3.6	1.3	3.7	1.2	0.70	-0.29	0.22
Peer	3.7	1.0	3.9	0.9	3.8	1.0	3.8	1.1	3.5	1.3	3.7	1.2	0.46	-1.82	-1.16
General	3.2	1.8	3.6	1.6	3.4	1.7	3.1	1.7	3.5	1.7	3.3	1.7	-0.24	-0.50[b]	-0.54
Composite	19.2	5.1	20.6	3.8	20.0	4.5	19.6	4.4	19.0	5.1	19.3	4.8	0.51	-2.27	-1.38

[a]Significant at .01 level

[b]Significant at .05 level

TABLE 6

NUMBER OF STUDENTS IN THREE CLASSIFICATIONS OF TEACHER SELF CONCEPT

Teacher Group	Primary Boys	Primary Girls	All
High (5)	49	44	93
Medium (6)	57	62	119
Low (5)	38	45	83
Total (16)	144	151	295

TABLE 7

MEANS AND F VALUES FOR TWO WAY ANALYSIS OF VARIANCE OF RESIDUAL GAIN FOR THE PRIMARY SELF APPRAISAL INVENTORY, BY SEX AND TEACHER SELF CONCEPT

Subscale	Teacher Group	Boys	Girls	All	Source	F
Peer						
	High	.3225	.1022	.2183	Sex	1.08
	Medium	-.1488	-.3961	-.2777	Teacher	1.60
	Low	.3243	.0093	.1535	Interaction	<1.0
	Total	.1362	-.1301			
Family						
	High	.1482	.4344	.2836	Sex	1.31
	Medium	.0228	.1621	.0954	Teacher	6.43[a]
	Low	-.5913	-.3390	-.4545	Interaction	<1.0
	Total	-.0966	.0921			
Scholastic						
	High	.1792	.6491	.4015	Sex	<1.0
	Medium	-.0122	-.1578	-.0881	Teacher	2.59
	Low	-.0973	-.5148	-.3236	Interaction	<1.0
	Total	.0305	-.0291			
General						
	High	.3128	.0667	.1963	Sex	1.29
	Medium	.1925	.0109	.0979	Teacher	3.03[b]
	Low	-.2851	-.4236	-.3602	Interaction	<1.0
	Total	.1074	-.1024			
Composite						
	High	.9907	1.1548	1.0683	Sex	1.09
	Medium	.1910	- .6297	-.2366	Teacher	3.52[b]
	Low	-.3918	-1.2512	-.8577	Interaction	<1.0
	Total	.3093	.2949			

[a]Significant at .01 level

[b]Significant at .05 level

TABLE 8

MEANS AND F VALUES FOR TWO WAY ANALYSIS OF VARIANCE OF RESIDUAL GAIN FOR THE PRIMARY SCHOOL SENTIMENT INDEX BY SEX AND TEACHER SELF CONCEPT

Subscale	Teacher Group	Boys	Girls	All	Source	F
Teacher						
	High	.5222	.0684	.3075	Sex	2.17
	Medium	.0782	-.0055	.0346	Teacher	6.62[a]
	Low	-.3636	-.4199	-.3941	Interaction	<1.0
	Total	.1127	-.1075			
Subject						
	High	-.1572	-.0663	-.1142	Sex	<1.0
	Medium	-.0154	-.0813	-.0497	Teacher	1.03
	Low	.1667	.2267	.1992	Interaction	<1.0
	Total	-.0156	.0149			
Structure						
	High	-.0599	.3001	.1125	Sex	<1.0
	Medium	.1390	-.2046	.0538	Teacher	1.73
	Low	-.1208	-.2727	-.2032	Interaction	1.47
	Total	.0041	-.0039			
Peer						
	High	.2778	-.1472	.0767	Sex	3.77
	Medium	.2635	-.1576	.0441	Teacher	<1.0
	Low	-.2293	-.0815	-.1492	Interaction	1.69
	Total	.1383	-.1319			
General						
	High	-.3472	.1096	-.1311	Sex	5.30[b]
	Medium	.0004	.2246	.1172	Teacher	<1.0
	Low	-.3436	.2513	.0211	Interaction	<1.0
	Total	-.2086	.1990			
Composite						
	High	.4309	.1790	.3117	Sex	<1.0
	Medium	.7097	-.4467	.1072	Teacher	<1.0
	Low	-.8059	-.2472	-.5030	Interaction	<1.0
	Total	.2149	-.2050			

[a] Significant at .01 level

[b] Significant at .05 level